

REMARKS

Claims 1-192 were pending in the present application. By virtue of this response, claims 6, 22, 38, 42-48, 54, 70, 86, 90-96, 97-144, 150, 166, 182, and 186-192 have been cancelled. Accordingly, claims 1-5, 7-21, 23-37, 39-41, 49-53, 55-69, 71-85, 87-89, 145-149, 151-165, 167-181, and 183-185 are currently under consideration. Cancellation of certain of the claims is made without prejudice to expedite issuance of the application and is not to be construed as a dedication to the public of any of the subject matter of the claims as previously presented.

Concerning the drawings

In response to the Notice of Draftperson's Patent Drawing Review attached to Paper No. 9, Applicants are herewith submitting eight (8) sheets of formal drawings.

Rejections under 35 U.S.C. §101

The Examiner has rejected claims 1-192 "because the subject matter recites a method for developing an object oriented computer program that provides externalization but it fails to describe any method of making it." Applicants respond that in regard to Claim 1, the claimed method is described by the claim element which recites "including within a program[,] code having specific capabilities. Applicants believe that including code with specified capabilities into a computer program describes the method in a patentable way.

Applicants' understanding is that the Examiner agrees that Claim 1 is a method claim. See Office Action, p. 2, item 1, ¶2, "*Analysis:*" Accordingly, Applicants believe that the rejection based on 35 U.S.C. §101 is rooted in the interpretation made by the Examiner and the conclusion drawn therefrom, i.e., that Claim 1, as among claims 1-192, is "an abstract idea of a data structure" and is "unable of producing useful results when fixed in a tangible medium and its functionality can be realized." See Office Action, p. 2, item 1, ¶3, "Examiner interprets..."

Applicants do not believe that the claim language recites a data structure; abstract or otherwise. Applicants believe the definition of "data structure" used by the U. S. Patent and Trademark Office (USPTO) is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." See Examination Guidelines for Computer-Related

Inventions, Final Version, p. 34, fn. 27; (February 28, 1996, Federal Register (61 Fed. Reg. 7478)).¹ Claim 1 does not recite such a physical or logical relationship, but rather recites “including within a program[,] code for providing in memory at runtime a description of an object based on its one or more attributes.” Applicants do not represent that the included code cannot incorporate one or more data structures -- as such use of data structures is common in the code included in computer programs in general. But Applicants believe that the distinction between *being* a data structure (a physical or logical relationship) and the possibility of *incorporating* one is determinative here.

Further support appears in the specification. The class definition for class AttributeMap (550 of Figure 5), for example, represents code such that may be included in a program to provide in memory at runtime a description of an object based on its one or more attributes (thus satisfying the limitations of Claim 1). The specification states that “[f]or objects of a particular class, an AttributeMap-derived object builds, stores, and provides access to information about the attributes present in each object.” Application, p. 14, lines 7-9.

Figure 5 also depicts that the AttributeMap class definition includes two defined operations (a.k.a., methods, or behaviors): attrCount() (552 of Figure 5), and getAttrDef() (553 of Figure 5). Consistent with ordinary usage in object-oriented programming, and consistent with the explanation of class definition code appearing in the specification, the code for operations attrCount() and getAttrDef() are understood to include *data processing instructions to perform the operation*. Application, p.8, lines 7-16. Such data processing instructions to perform operations do not fall within the definition of data structure.

Applicants further believe that such code is fully able of producing useful results when fixed in a tangible medium and its functionality can be realized. This fact is discussed throughout the Application, and in particular in the Summary of the Invention (p. 3, lines 1-15). In one example, the description of an object based on its one or more attributes provided in memory at runtime by the subject program code is useful in externalizing the object as stated in the Summary of the Invention at p.3, lines 11-12, and in more detail in regards to the discussion of Figure 7 at p. 18 line 25 to page 20, line 6.

¹ Currently published by the USPTO at <http://www.uspto.gov/web/offices/com/hearings/software/analysis/computer.html>

On a side note, Applicants believe that the citation to *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994) as controlling authority in this instance is inapposite. Warmerdam dealt with the subject of mathematical algorithms and no such mathematical algorithm has been implicated here. Applicants further believe that to the extent Warmerdam may have been applied beyond purely mathematical algorithms, that breadth of application is no longer possible in light of the Federal Circuit's more recent decisions in *State Street Bank & Trust Co. v. Signature, Fin. Group, Inc.* (149 F.3d 1368, 47 USPQ.2d (BNA) 1596 (Fed. Cir. 1998, cert. denied, 119 S. Ct. 851 (1999))) and *AT&T Corp. v. Excel Communications, Inc.* (172 F.3d 1352, 50 USPQ.2d (BNA) 1447 (Fed. Cir. April 14, 1999)). Indeed, while reconciling *In re Warmerdam*, the court in *AT&T v. Excel* (172 F.3d at 1360) suggests that the conclusion of the *In re Warmerdam* court on the facts is open to debate.

Because Claim 1 is not directed to an abstract idea of a data structure and because the method of Claim 1 is fully able of producing useful results when fixed in a tangible medium and its functionality can be realized, Applicants believe that the stated rejection of Claim 1 based on 35 U.S.C. §101 is improper. Moreover, Applicants believe the foregoing analysis extends to all of the remaining dependents of Claim 1, and to Claim 49 and all of its remaining dependents. Applicants further believe that the analysis, as applicable, would also extend to claim 145 and all of its remaining dependents. Applicants note, however, the Claim 145 is directed to a computer system rather than to a method.

Accordingly, Applicants believe that the stated rejection to all remaining claims based on 35 U.S.C. §101 is improper and requests the Examiner to remove the rejection.

Rejections under 35 U.S.C. §112

Claims 97-144 have been canceled in this action and thus the Examiner's rejection of these claims under 35 U.S.C. §112 is no longer at issue.

Objection under 37 CFR §1.75

Claims 1-192 were objected to as being in improper form because an unreasonable number of claims and ground of multiplicity is applied.

Applicants call Examiner's attention to the 78 claims that have been removed from consideration in this application. The 114 claims that remain are divided into 3 families of 38 claims each.

The three remaining families of claims parallel one another in the layering and combination of limitations. Accordingly, to examine one family is by and large to examine all three families. The three families of claims exist to address different classes of participants in the industry that Applicants foresee as possible infringers of an issuing patent. Accordingly, Applicants do not believe that such multiplicity is undue given the facts and circumstances of the industry in which the Applicants participate.

Furthermore, the 38 claims in each family have repeating patterns of dependency that again simplify the examination effort to something substantially less than what the raw number of claims suggests. For example claims 2-9 depending from claim 1, parallel claims 18-25 depending from claim 17. And again, claims 10-16 depending from claim 1, parallel claims 26-32 depending from claim 17. In fact, the entirety of the dependent claims represents a specific selection of various permutations involving essentially only 8 different limitations. Applicants believe that the present set of 38 claims in each family represents a reasonable set of purposed and meaningful combinations of limitations that is systematic and readily understandable. Applicants believe further reduction in the claim set will provide free-riders with design-around opportunities these claims were intended to protect against. Accordingly, Applicants do not believe that such multiplicity is undue, nor that the multiplicity that does exist creates a maze of confusion.

Applicants note that MPEP §2173.05(n) as cited by the Examiner notes that the court in *In re Chandler*, 319 F.2d 211, 225, 138 USPQ 138, 148 (CCPA 1963) said that "applicants should be allowed reasonable latitude in stating their claims in regard to number and phraseology employed." The court further stated that "the rule of reason should be practiced and applied on the basis of relevant facts and circumstances in each individual case." MPEP §2173.05(n) further states that "undue multiplicity rejections based on 35 U.S.C. 112, second paragraph should be applied judiciously and should be rare."

Accordingly, for good cause shown, Applicants request the Examiner to remove the objection based on 37 CFR §1.75 as to the remaining claims.

CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conversation would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 007532000500. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

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Respectfully submitted,

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